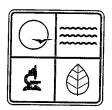
### STATE OF MISSOURI

## DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION



**PERMIT BOOK** 

# PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number:

102006-011

Project Number:

2006-07-080

161-0009

Owner:

Asphalt Products, Inc.

Owner's Address:

PO Box 104747, Jefferson City, MO 65110

Installation Name:

Asphalt Products, Inc.

Installation Address:

Hwy 63 North, Rolla, MO 65401

Location Information:

Phelps County, S23, T38N, R8W

Application for Authority to Construct was made for:

The modification of an existing asphalt plant. Asphalt is produced through a Drum Mix Dryer. The asphalt plant has a maximum hourly design rate (MHDR) of 300 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

☐ Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

OCT 1 8 2006

EFFECTIVE DATE

DIRECTOR OR DESIGNEE

DEPARTMENT OF NATURAL RESOURCES

### STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2006-07-080 161-0009

Asphalt Products, Inc.

PO Box 104747, Jefferson City, MO 65110

Asphalt Products, Inc.

Hwy 63 North, Rolla, MO 65401

Phelps County, S23, T38N, R8W

The modification of an existing asphalt plant. Asphalt is produced through a Drum Mix Dryer. The asphalt plant has a maximum hourly design rate (MHDR) of 300 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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Permit No.	
Project No.	2006-07-080

### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

- 1. Best Management Practices
  - Asphalt Products, Inc. shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
- 2. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>).
  - A. During concurrent operations with other asphalt, concrete, or rock-crushing plants, the operator(s) for Asphalt Products, Inc.'s asphalt plant (161-0009) shall ensure that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 μg/m3 in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. To demonstrate compliance with Special Condition 2A, the operator(s) shall maintain a daily record of material processed.
    - During concurrent operations with plants owned by Asphalt Products Inc., Attachment A, Daily Ambient PM<sub>10</sub> Impact Tracking Record, or other equivalent form(s), shall be used for this purpose.
    - 2) During concurrent operations with plants not owned by Asphalt Products, Inc., Attachment B, daily Ambient PM<sub>10</sub> Impact Tracking Record, or other equivalent form(s), shall be used for this purpose.
    - 3) Attachment B can also be used when operating with multiple plants owned by Asphalt Products, Inc. at the same time as plants owned by other companies
- 3. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)
  - A. The operator(s) shall ensure that Asphalt Products, Inc.'s asphalt plant emits less than 50 tons of PM<sub>10</sub> into the atmosphere in any consecutive 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and  $PM_{10}$ . Attachment C, *Monthly PM*<sub>10</sub> *Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
- 4. Moisture Content Testing of Storage Piles Requirement
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Asphalt Products Inc. claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the American Society for Testing Materials (ASTM D-2216 or C-566), EPA AP-42 Appendix C.2, or other method(s) approved by the Director.
  - C. The operator may obtain a copy of the test results of the inherent moisture content from the supplier(s) of the aggregate. Otherwise, the operator shall obtain test samples from each source of untested aggregate. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Asphalt Products Inc.'s main office.
  - D. If the moisture content result of the first test is less than 1.5 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.5 wt.%, Asphalt Products Inc. shall apply for a new construction permit to account for the revised information or install wet spray devices on the affected units.

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Permit No.	
Project No.	2006-07-080

### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- 5. Baghouse(s) Control System Requirements
  - A. Asphalt Products, Inc. shall install and operate baghouse(s) to restrict the emission of particulate matter. The baghouse(s) must be used whenever these units are in operation. The baghouse(s) shall be installed on the following units.
    - 1) Drum Dryer
    - 2) Hot Elevator
    - 3) Hot Screen
    - 4) Hot Bins
    - 5) Pug Mill
    - 6) Mineral Filler Silo.
  - B. The Asphalt Products, Inc. shall install instruments to monitor the operating pressure drop across the baghouse. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations. The operator(s) shall check and record the pressure drop across the baghouse filter once per operating day during silo loading. The baghouse operating pressure drop shall be maintained according to manufacturer's specifications.
  - C. The operator(s) shall conduct and document a quarterly inspection and maintenance of the baghouse for structural component failures, for leaks and wear, and for the cleaning sequence of the baghouse. Replacement bags shall be kept on hand at all times to replace defective bags (The bags shall be made of fibers appropriate for the operating conditions expected to occur). All inspections, corrective actions, and instrument calibrations shall be recorded.
- 6. Restriction on Minimum Distance to Nearest Property Boundary
  The primary emission point of the asphalt plant, which is the stack of the drum mix dryer, shall be located at least 550 feet from the nearest property boundary whenever it is operating at this site.
- 7. Restriction on the Use of Diesel Generators/Engines
  The stationary asphalt plant shall power its equipment using electrical power and not diesel
  generators/engines. If the plant decides, in the future, to operate diesel generators/engines, a new permit
  review will be required.
- 8. Record Keeping Requirement

The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

9. Reporting Requirement

The operator(s) shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.

10. Superseding Condition

The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (1291-018, 0795-008, 0498-007) from the Air Pollution Control Program.

### TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

### PROJECT DESCRIPTION

Hot Mix Asphalt (HMA) is composed of non-metallic aggregate, sand, mineral filler and other materials with liquid asphaltic cement. These materials are mixed and heated/dried in the drum dryer. Processed HMA is delivered as sellable product. The emission points are listed in the attached spreadsheet summary. This installation is classified under the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2, Item 27]. The installation is located in Phelps County, an attainment area for all criteria air pollutants

The stationary asphalt plant, 161-0009, is permitted to operate under four scenarios. In scenario one, the stationary asphalt plant is permitted to operate by itself at the site. In scenario two, the asphalt plant is permitted to operate with other asphalt, concrete, or rock-crushing plants owned by Asphalt Products, Inc.. In scenario three, the asphalt plant is permitted to operate with other asphalt, concrete, or rock-crushing plants owned by other companies. In scenario four, the asphalt plant is permitted to operate with other asphalt, concrete, or rock-crushing plants owned by Asphalt Products, Inc. at the same time as plants owned by other companies.

There is a rock quarry pit located north of the stationary asphalt plant within the same property boundary, and other asphalt, concrete, or rock-crushing plants may operate inside the quarry pit. Due to the high walls surrounding the quarry pit and its considerable distance (more than 1,500 feet) from the stationary asphalt plant, both of which will reduce  $PM_{10}$  ambient air impact, the rock quarry pit can be considered a different site. A separate site ID number has been given to the rock quarry and any ambient impact from plants operating at the quarry will not be counted against the stationary asphalt plant and other plants operating on the south side of the property.

Table 1. Other Permits Issued for Site 161-0009

Permit Number	Completed	Description
1291-018	12/16/1991	Synthetic Deminimis Permit Issued.
0795-008	07/14/1995	Increasing Production.
0498-007	04/09/1998	Increasing Production.

### **EMISSIONS EVALUATION**

Criteria air pollutants will be emitted from this operation. The plant will use an asphalt heater with a maximum design rate of 0.5 MMft<sup>3</sup> of natural gas per hour. It is assumed that the asphalt heater will be used during plant operations and when the plant is not operating. Therefore, emissions from the asphalt heater are based on twenty-four (24) hours per day of operation. The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section "Permit Documents". Based on the conditioned potential emissions, the operation is considered a minor source under 10 CSR 10-6.060 section (6).

The asphalt plant has an annual emission limit of less than 50 tons of  $PM_{10}$  in any 12-month period. A composite  $PM_{10}$  emission factor was developed for the asphalt plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment C. If the conditioned potential emissions of  $PM_{10}$  were 50 tons per year or greater, then the owner would be required to submit dispersion modeling results.

Table 2: Emissions Summary (tons per year)

		many (terne per y	· · · /			
Air Pollutant	Regulatory De Minimis Levels	*Existing Potential Emissions	Existing Actual Emissions ( 2005 EIQ)	Potential Emissions of the Application	*New Installation Conditioned Potential	Emission Factor (lb/ton)
PM <sub>10</sub>	15.0	131.04	3.71	131.04	<50	0.0997
SOx	40.0	14.45	0.12	14.45	5.51	N/A
NOx	40.0	72.49	1.28	72.49	27.79	N/A
VOC	40.0	42.06	2.59	42.06	16.05	N/A
CO	100.0	171.00	20.05	171.00	65.34	N/A
HAPs	10.0/25.0	5.15	N/A	5.15	1.96	N/A

Note: N/A = Not Applicable; N/D = Not Determined

<sup>\*</sup> PM<sub>10</sub> conditioned potential based on twenty-four hours per day operation of the asphalt heater and limiting the combined emissions from the asphalt heater and the rest of the plant to under 50 tpy. Other pollutants proportionally reduced.

### **AMBIENT AIR QUALITY IMPACT ANALYSIS**

The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of  $150 \, \mu g/m^3$  of  $PM_{10}$  at or beyond the nearest property boundary in any single 24-hour period. For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of  $20 \, \mu g/m^3$  of  $PM_{10}$ . To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than  $130 \, \mu g/m^3$  of  $PM_{10}$  at or beyond the nearest property boundary.

The stationary asphalt plant, 161-0009, is permitted to operate under the following scenarios.

- Scenario 1: The stationary asphalt plant is permitted to operate by itself at the site.
- Scenario 2: The stationary asphalt plant is permitted to operate with other asphalt, concrete, or rock-crushing plants owned by Asphalt Products, Inc..
- Scenario 3: The stationary asphalt plant is permitted to operate with other asphalt, concrete, or rock-crushing plants owned by other companies.
- Scenario 4: The stationary asphalt plant is permitted to operate with other asphalt, concrete, or rock-crushing plants owned by Asphalt Products, Inc. at the same time as plants owned by other companies.

During solitary operations, the stationary asphalt plant can operate twenty-four (24) hours a day and still not exceed NAAQS. Therefore, the stationary asphalt plant will not be required to track its daily  $PM_{10}$  ambient impact during solitary operations. When operating under scenarios 2 and 4, the stationary asphalt plant must not only track its own daily  $PM_{10}$  ambient impact but also the daily  $PM_{10}$  ambient impact of all other plants owned by Asphalt Products, Inc. The daily  $PM_{10}$  ambient impact from these plants can be obtained from the operators of these plants. Furthermore, under scenarios 3 and 4, the  $PM_{10}$  ambient impact of plants owned by other companies shall be held to 54.00  $\mu g/m^3$  and be given as background concentration. The combined  $PM_{10}$  ambient impact of all plants owned by Asphalt Products, Inc. shall then be held to 74.00  $\mu g/m^3$  to ensure that the daily  $PM_{10}$  ambient impact stays below 130  $\mu g/m^3$ .

Table 3: Ambient Air Quality Impact Analysis of PM<sub>10</sub>, 24-Hour Averaging Time

Operation		Ambient Impact Factor (µg/m³ton)	Modeled Impact (µg/m³)	*Asphalt Heater Impact (µg/m³)	**Background (µg/m³)	NAAQS (μg/m³)	Daily Production Limit (tons)
1.	Solitary	0.0095	68.18	0.23	20.00	150.00	7,200
2.	Concurrent, Same Owner	0.0095	***	0.23	20.00	150.00	***
3.	Concurrent, Separate Owners	0.0095	68.18	0.23	74.00	150.00	7,200
4.	Concurrent, Same and Separate Owners	0.0095	***	0.23	74.00	150.00	***

<sup>\*0.23</sup> μg/m³ from the twenty-four (24) hours per day operation of the asphalt heater.

<sup>\*\*</sup>Background PM<sub>10</sub> level of 20.00 μg/m³ from haul roads and stockpiles and 54.00 μg/m³ from the operations of plants owned by other companies.

<sup>\*\*\*</sup> The operator(s) must balance production among concurrently operating plants, with the ambient impact factors for each, such that NAAQS is not exceeded. Ambient impact from other asphalt, concrete, or rock-crushing plants owned by Asphalt Products, Inc. shall be obtained from the operator's of these plants.

### **APPLICABLE REQUIREMENTS**

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110

- Operating Permits, 10 CSR 10-6.065
- An Operating Permit application is required for this installation within 30 days of equipment startup.
- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170
- Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220
- Restriction of Emission of Odors, 10 CSR 10-3.090
- Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400
- Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260
- 40 CFR Part 60 Subpart "I", Standards of Performance for Hot Mix Asphalt Facilities, of the New Source Performance Standards (NSPS)
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required, I recommend this permit be granted without special conditions.

Chia-Wei Young	 Date
Environmental Engineer	

### **PERMIT DOCUMENTS**

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Asphalt Products, Inc. as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition.
- Noyes Data Corp. book, Orlemann, et al. 1983, Fugitive Dust Control.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southeast Regional Office Site Survey.
- Best Management Practices.

# Attachment A: Daily Ambient PM<sub>10</sub> Impact Tracking Record Asphalt Products, Inc., 161-0009 – Asphalt Plant For Use When Operating With Plants Owned by Asphalt Products, Inc.

Project Number: 2006-07-080

County, CSTR: Phelps County (S23, T38N, R8W)

Primary Unit Size: 300 tph

Distance to Nearest Property Boundary: 550 feet

This sheet covers the period from \_\_\_\_\_\_ to \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year) (Copy this sheet as needed.)

	161-0009 Project # 2006-07-080					Plant ID:	Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:		
Date	Daily Production (tons)	Ambient Impact Factor (µg/m³ton)	<sup>1</sup> PM <sub>10</sub> impact from Plant Operations (μg/m <sup>3</sup> )	<sup>2</sup> PM₁₀ Impact from Asphalt Heater (µg/m³)	<sup>3</sup> Daily PM <sub>10</sub> Impact (µg/m³)	<sup>4</sup> Daily PM₁₀ Impact (μg/m³)	<sup>4</sup> Daily PM₁₀ Impact (μg/m³)	<sup>4</sup> Daily PM₁₀ Impact (μg/m³)	<sup>5</sup> Back- ground PM <sub>10</sub> Level (μg/m <sup>3</sup> )	<sup>6</sup> TOTAL PM <sub>10</sub> Level (μg/m³)
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23					20.00	
		0.0095		0.23			1 1 1 1 1 1 1 1 1 1 1 1		20.00	

- Note 1: The PM<sub>10</sub> Impact from Plant Operations (µg/m<sup>3</sup>) for Asphalt Products, Inc. stationary asphalt plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor
- Note 2: Daily PM<sub>10</sub> Ambient Impact from Heater (µg/m³) is from the twenty-four (24) hours per day operation of the asphalt Heater
- Note 3: The Daily PM<sub>10</sub> Impact (µg/m³) is calculated by adding the PM<sub>10</sub> Impact from Plant Operations and the PM<sub>10</sub> impact from Asphalt Heater (µg/m³).
- Note 4: The Daily PM<sub>10</sub> Impact (μg/m³) for other plants owned by Asphalt Products, Inc. can be obtained from the operators of these plants. This is the Daily PM<sub>10</sub> Ambient Impact (μg/m³) without the background concentrations.
- Note 5: Background PM<sub>10</sub> Level (μg/m³) is from Haul Roads and Stockpiles.
- Note 6: The TOTAL PM<sub>10</sub> Level (μg/m³) is calculated by summing the Daily PM<sub>10</sub> Ambient Impact(s) and the Background PM<sub>10</sub> Level. A TOTAL PM<sub>10</sub> Level of less than 150 μg/m³ in any 24-hour period indicates compliance.

### Attachment B: Daily Ambient PM<sub>10</sub> Impact Tracking Record Asphalt Products, Inc., 161-0009 - Asphalt Plant

### For Use when Operating With Plants Owned by Other Companies

### Also For Use When Multiple Plants Owned by Asphalt Products, Inc. Operate at the Same Time With Plants Owned by Other Companies

**Project Number:** 2006-07-080

County, CSTR: Phelps County (S23, T38N, R8W)

Primary Unit Size: 300 tph

Distance to Nearest Property Boundary: 550 feet

This sheet covers the period from \_\_\_\_\_\_ to \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year) (Copy this sheet as needed.)

	Asphalt Products, Inc. 161-0009 Project # 2006-07-080					Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:		
Date	Daily Production (tons)	Ambient Impact Factor (µg/m³ton)	<sup>1</sup> PM <sub>10</sub> impact from Plant Operations (μg/m <sup>3</sup> )	<sup>2</sup> PM <sub>10</sub> Impact from Heater (µg/m³)	<sup>3</sup> Daily PM₁₀ Impact (μg/m³)	<sup>4</sup> Daily PM <sub>10</sub> Impact (μg/m³)	<sup>4</sup> Daily PM₁₀ Impact (μg/m³)	<sup>4</sup> Daily PM <sub>10</sub> Impact (μg/m³)	<sup>5</sup> Back- ground PM₁₀ Level (μg/m³)	<sup>6</sup> TOTAL PM <sub>10</sub> Level (μg/m³)
Date	(10113)	0.0095	(μg/111 )	0.23	(рулл)	(μg/π)	(μg/π)	(μg/π)	74.00	(μg/π)
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23	·				74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23					74.00	
		0.0095		0.23		Consequence of the least the section of			74.00	

- Note 1: The PM<sub>10</sub> Impact from Plant Operations (µg/m<sup>3</sup>) for Asphalt Products, Inc. stationary asphalt plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor
- Note 2: Daily PM<sub>10</sub> Ambient Impact from Heater (µg/m³) is from the twenty-four (24) hours per day operation of the asphalt Heater
- The Daily PM<sub>10</sub> Impact (µg/m<sup>3</sup>) is calculated by adding the PM<sub>10</sub> Impact from Plant Operations and the PM<sub>10</sub> impact from Heater (µg/m<sup>3</sup>). Note 3:
- Note 4: The Daily PM<sub>10</sub> Impact (µg/m<sup>3</sup>) for other plants owned by Asphalt Products, Inc. can be obtained from the operators of these plants. This is the Daily PM<sub>10</sub> Ambient Impact (µg/m<sup>3</sup>) without the background concentrations. When the stationary asphalt plant, 161-0009, is the only plant operating that is owned by Asphalt Products, Inc., a value of zero (0) should be entered for the daily  $PM_{10}$  ambient impact ( $\mu g/m^3$ ) for the other plants.
- Background PM<sub>10</sub> Level (ug/m<sup>3</sup>) is from Haul Roads and Stockpiles **AND** the operations of other asphalt, concrete, or rock-crushing plants owned by other companies.
- The TOTAL PM<sub>10</sub> Level (µg/m<sup>3</sup>) is calculated by summing the Daily PM<sub>10</sub> Ambient Impact(s) and the Background PM<sub>10</sub> Level. A TOTAL PM<sub>10</sub> Level of less than 150 µg/m<sup>3</sup> in any 24-hour period indicates compliance.

# Attachment C: Monthly PM<sub>10</sub> Emissions Tracking Record Asphalt Products, Inc., 161-0009 – Stationary Asphalt Plant

Project Number: 2006-07-080

County, CSTR: Phelps County (S23, T38N, R8W)

Primary Unit Size: 300 tph

Distance to Nearest Property Boundary: 550 feet

This sheet covers the period from \_\_\_\_\_\_ to \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year) (Copy this sheet as needed.)

		Composite				
		PM <sub>10</sub>	<sup>1</sup> Monthly	Monthly PM <sub>10</sub>	<sup>2</sup> Total Monthly	
	Monthly	Emission	PM <sub>10</sub>	Emissions from	PM <sub>10</sub>	<sup>3</sup> 12-Month PM <sub>10</sub>
	Production	Factor	Emissions	Asphalt Heater	Emissions	Emissions
Month	(tons)	(lbs/ton)	(tons)	(tons)	(tons)	(tons/year)
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
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		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		
		0.0997		0.0017		

- Note 1: The Monthly Emissions (tons) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton) and dividing by 2,000.
- Note 2: The Total Monthly Emissions (tons) are calculated by summing the Monthly Emissions (tons) and the Monthly Emissions from Asphalt Heater (tons).
- Note 3: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Total Emissions (tons) to the Monthly Total Emissions (tons) of the previous eleven (11) months. A total of less than **50** tons in any consecutive 12-month period indicates compliance.

# Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

### For Haul Roads:

### Pavement of Road Surfaces –

- A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve "Control of Fugitive Emissions" while the plant is operating.
- B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

### 2. Usage of Chemical Dust Suppressants –

- A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
- B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

### 3. <u>Usage of Documented Watering</u> –

- A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
- B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
- C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
- D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
- E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

<sup>&</sup>lt;sup>1</sup> For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

### For Vehicle Activity Areas around Open Storage Piles:

- 1. Pavement of Stockpile Vehicle Activity Surfaces -
  - A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
  - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

### 2. <u>Usage of Chemical Dust Suppressants</u> –

- A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
- B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

### 3. <u>Usage of Documented Watering</u> –

- A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
- B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
- C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
- D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
- E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Chris Yarnell Asphalt Products, Inc. PO Box 104747 Jefferson City, MO 65110

RE: New Source Review Permit - Project Number: 2006-07-080

Dear Mr. Yarnell:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions and the requirements in your permit.

Operation in accordance with the conditions and requirements in your permit, and the New Source Review application submitted for project 2006-07-080, is necessary for continued compliance. An operating permit application is required within thirty (30) days after equipment startup. Once issued, this operation permit will contain all applicable requirements for your asphalt plant, including any special conditions from your New Source Review permit.

The section of the permit entitled "Technical Review of Application for Authority to Construct" should not be separated from the main portion of your permit. The entire permit must be retained in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall Hale, P.E. New Source Review Unit Chief

KH:cwyl

Enclosures

c: Southeast Regional Office PAMS File: 2006-07-080 Permit Number: